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Abstract

5 Sulfonated aromatic polymers, membrane containing said polymers and a method
for production and use of the same

A sulfonated aromatic polymer comprising the repeating structural unit of the
formula I



15 in which Ar¹ and Ar² are, independently of one another, divalent aromatic or
heteroaromatic radicals which are optionally substituted by one or more
monovalent organic groups which are inert under the conditions of use, R is
hydrogen, an alkali metal or alkaline earth metal ion or an ammonium ion, n is an
integer from 0 to 3, m is 0, 1 or 2 and X is a -CO-, -O-, -C_pH_{2p}-, -C_pF_{2p}- or -S-
group, in which p is an integer from 1 to 10, is described.

20 Membranes with high proton conductivities can be produced from this polymer and
are preferably used in fuel cells.